

Upgraded B-52 Still on Cutting Edge

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3/31/2008 - LANGLEY AIR FORCE BASE, Va. (AFPN) -- The B-52 Stratofortress is continually modified with new technology making the 50-year-old airframe one of the Air Force's most effective long-range heavy bombers.

Modified B-52 aircraft with modern technology are capable of delivering a full range of joint-developed weapons and will continue to be an important element of national defense, said Air Combat Command officials.

Upgrades have not only given the B-52 pin-point targeting capability but also enable it to carry the largest variety of weapons among the heavy bombers, said Lt. Col. Grey L. Morgan, the ACC B-52 program element monitor.

"We are capable of attacking multiple targets with just one aircraft," Colonel Morgan said. "With the advent of (global positioning system)-capable weapons we can service more targets across the spectrum."

With the newer weapons and the B-52's capacity to carry them, it's no longer a question of how many bombers per target, it's evolved into how many targets per bomber, Colonel Morgan said.

An example of a recent advance in the B-52 is the LITENING advanced targeting pod that is used for targeting, intelligence, reconnaissance and surveillance.

The targeting pod contains a high-resolution, forward-looking infrared sensor that displays an image of the target to the aircrew. It has a wide field-of-view search capability and a narrow field-of-view acquisition and targeting capability. The pod contains a digital camera used to obtain target imagery in the visible portion of the electromagnetic spectrum, ACC officials said.



A B-52 prepares for departure as another B-52 arrives. The B-52 is capable of flying 8,800 miles without refueling and can carry a weapons load of up to 70,000 pounds. (U.S. Air Force photo/Tech. Sgt. Robert Horstman)



49th Test and Evaluation Squadron demos LITENING pod visual feed. A LITENING pod sits under the wing of a B-52 Stratofortress. The 49th Test and Evaluation Squadron's demonstration showed the B-52's LITENING pod's capability to capture digital imagery and upload it to communications networks. (U.S. Air Force photo)

New modifications on the B-52 also include a laser designator for precise delivery of laser-guided munitions and a laser rangefinder for exact target coordinates.

One B-52 can engage dozens of targets simultaneously, said Lt. Col. Bryan L. Harris, the ACC B-52 weapon system team chief. "It is the most combat-capable bomber that we have in the U.S. Air Force."

The last B-52 built was delivered to the Air Force in October 1962 and currently there are only 94 of the original 744 aircraft still operational.

"Despite its age, the B-52 has the highest mission capable rate of the three heavy bombers currently in the Air Force," said Colonel Morgan. "It is still effective in many roles and its capable of performing missions that otherwise would go unfilled."

Other recent initiatives with the B-52 involve its use as a testing platform for synthetic fuels. The B-52 was chosen as the services first aircraft in synthetic fuel testing because it has a unique fuel management system that makes it possible to isolate various fuel tanks in the aircraft.

"This allowed us to put synthetic fuel in one fuel tank which we can control feeding into the desired engines and put more conventional JP-8 in the remaining fuel tanks for the remaining engines," Colonel Morgan said.

The Air Force will continue to upgrade the B-52 to sustain the aircraft's capability and effectiveness, ACC officials said.

The older airframe will continue to be useful as long as it can be modified with new technology at cheaper costs than purchasing new bombers, Colonel Morgan said.



Air Force prepares to test synthetic fuel on B-52. A B-52 Stratofortress powered by a mix of synthetic and JP-8 fuel takes its first flight Sept. 19, 2006, from Edwards Air Force Base, Calif., bringing the Air Force one step closer to reducing its dependence on foreign fuel. The B-52 shown is at Minot AFB, N.D. (U.S. Air Force photo/Master Sgt. Lance Cheung)



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